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10/823,431	04/13/2004	Leo M. Pedlow JR.	SNY-T5775.02	4023

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MILLER PATENT SERVICES
2500 DOCKERY LANE
RALEIGH, NC 27606

EXAMINER
HOMAYOUNMEHR, FARID

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/823,431	PEDLOW, LEO M.	
	Examiner	Art Unit	
	Farid Homayounmehr	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *multiple*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: application, filed 4/13/2004; amendment filed 4/4/2007.

2. Claims 1-33 are pending in the case. Claim 7 is cancelled.

Information Disclosure Statement PTO-1449

3. Information Disclosure Statements submitted by the applicant on 2/12/2007, and 5/17/2007 have been considered. See attached 1449 forms.

Response to Arguments

4. Rejection under section 112 is withdrawn due to amendments by the applicant.

5. Applicant's argument relative rejection under section 103 is fully considered:

With regards to claim 1, applicant argues that So teaches against "real time encryption", because the cited paragraphs 14 and 15 indicate that real time encryption in VOD is disadvantageous. However, identifying the disadvantages of real time encryption is not equivalent of teaching against real time encryption. As mentioned before, So recognizes

that prior art teaches real time encryption. There is nothing in So that prevents combining it with a reference that performs real time encryption.

Applicant further argues: "The So reference is completely silent on whether it is desirable to be able to service multiple types of set-top boxes to expand a client base, as asserted." However, paragraph 19 clearly shows that So's invention delivers content to one or more cable systems. In addition, paragraph 160 and Fig. 5 describe an embodiment which clearly delivers the content to two different cable systems, and specifically mentions that components may be modified to meet the requirements of cable systems. Therefore, So, as previously asserted, teaches content delivery to multiple cable systems.

Applicant further argues that the method described by So is not the same as encrypting content when requested by a subscriber session manager. However, the claim language is silent about subscriber session manager requesting encryption for each session. Per claim language, the subscriber terminal requests delivery of content to initiate a session. The applicant may be arguing that their system encrypts the content in response to each session request. However, the rejection specifically added the teachings of Colligan to shows that encryption per request was well known in the art, and it was obvious to perform encryption per request. As shown in the last Office Action, So's invention does not encrypt the content after each request, but it recognizes that prior art for VOD distribution does teach encryption after each request (see paragraphs

14 and 15). Colligan teaches encryption after each request (Fig. 5A and associated text).

Applicant further argues that the cited paragraph 51 does not teach the elements of: "routing the first portions to a first encryption device that encrypts content for decryption under the first encryption method for VOD session" and "routing the second portions around the first encryption device". However, paragraph 51 was cited to teach a first encryption method perform by So's system. The element of routing the second portion around the first encryption device is clearly thought by selective encryption, which is suggested by So paragraph 106, and discussed multiple time in previous office actions.

Applicant further argues that So appears to deal only with one type of encryption at a time. However, applicant fails to identify any part of claim that is the subject of this argument. In addition, the scope of So's teachings are clearly not limited or confined to only one type of encryption. As mentioned in the above, So teaches working with multiple cable systems, and performs encryption and decryption to match the requirements of different cable systems.

Applicant requests a citing from So that attributes to the statement: "encrypts the content according to capabilities of the requesting terminal, and won't perform any encryption that cannot be decrypted by the receiving terminal". So paragraph 63 shows transmission of cable specific cryptographic parameters by CAS. Paragraph 51 shows

content preparation by CPS according to requirements of CAS and requirements of VOD systems.

Applicant further argues that paragraph 106 does not teach: "assembling a stream of selectively encrypted content from the encrypted first portions and the second portions to produce a selectively encrypted stream of content". However, paragraph 106 teaches selective encryption, and all the mentioned elements of claims are part of the process of selective encryption.

Applicant further argues: "Paragraph [0106] of the So reference describes a stream composed of portions that are encrypted or not encrypted, but not "assembling a stream of selectively encrypted content from the encrypted first portions and...the encrypted second portions" as recited in Applicant's claims. So does not disclose or suggest "assembling a stream of selectively encrypted content from the encrypted first portions and...the encrypted second portions" with selection between multiple encryption methods and multiple encrypters as taught and claimed by Applicant." However, the claim language does not require the first portion and the second portions to be encrypted either. At all instance, including the newly added limitations, the claim requires the first portion encrypted, and the second portion not encrypted. This is taught by selective encryption. The second encryptor required by the new limitation also encrypts the first portion and not the second portion. This is taught by the fact that So

teaches encryption according to the requirements of different cable systems and their different cryptographic parameters as discussed above.

Applicant further argues: "It is noted that the computations provided in paragraphs [0015] through [0017] clearly demonstrate that So has no appreciation for the benefits that selective encryption can provide toward solving the very problem he is addressing using ECM retrofitting and pre-encryption, much less the problem addressed by Applicant". However, applicant provides no reason why paragraphs 15 to 17 demonstrate So has no appreciation for selective encryption, despite So's clear suggestion of selective encryption in paragraph 106.

With regards to Colligan, applicant further argues: "There is no teaching whatsoever of a VOD stream having content that has been selective encrypted so that a first portion is encrypted and a second portion is clear, with the encryption being carried out using either a first encryption means or a second encryption means within the same VOD session based upon the capabilities of the receiver as claimed." However, Colligan teaches selective encryption, which teaches a first portion is encrypted and a second portion is clear. Encrypting using the first or second encryption means according to capabilities of the receiver is taught, at least by So, as indicated above.

Applicant further states: "Moreover, there is no teaching of selective encryption". However, in the same paragraph, applicant admits: "The cited portions of the Colligan reference state that packets can be selectively encrypted...".

Based on the above discussion, applicant's arguments relative to allowability of claims are non persuasive.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-6, 8-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over So (US Patent Application Publication No. 2002/0083438, dated 6/27/2002), and further in view of Colligan (US Patent No. 6,415,031, filed March 20, 2000).

7.1. As per claim 1, 10 and 17, So is directed to a VOD method that provides session based encryption (paragraphs 45 and 106), comprising: processing content by selecting first portions of the content for encryption under a selective encryption system and

selecting second portions of the content to remain unencrypted (paragraph 106 discloses use of selective encryption);

storing the first portions; storing second portions; receiving a request for delivery of the content (paragraph 58); determining if the subscriber terminal has decryption capabilities associated with a first decryption method or a second decryption method (paragraph 63, where the CAS system determines cryptographic parameters. Note that EMM signals match the capabilities of terminals with the encryption protocol, and therefore the capabilities of subscriber terminals are determined and considered); if the request is from a subscriber terminal having decryption capabilities associated with the first decryption method, then for each request from the subscriber terminal having decryption capabilities associated with the first decryption method to initiate VOD session (encryption for each request was obvious to the one skilled in art and as taught by Colligan. See the explanation at the end of rejection of claim 1): routing the first portions to a first encryption device that encrypts content for decryption under the first encryption method for VOD session (paragraph 51); routing the second portions around the first encryption device; encrypting neither the first nor the second portions using a second encryption device that encrypts content for decryption under the second decryption method for VOD session (So encrypts the content according to capabilities of the requesting terminal, and won't perform any encryption that cannot be decrypted by the receiving terminal); encrypting the first portions using a first encryption process at the first encryption device to produce encrypted first portions; (paragraph 51, where the CPS encrypts the content according to CAS specifications); and if the request is not .

from a subscriber terminal having, decryption capabilities associated with the first decryption method:

routine the first portions to a second encryption device that encrypts content for, decryption under the second encryption method, to provide encryption of the first portions for the VOD session, routing the second portions around the second encryption device, encrypting neither the first nor the second portions using the first encryption device that encrypts contents for decryption under the first decryption method for the VOD session; encrypting the first portions using the second encryption process at the second encryption device to produce encrypted first portions (this is another selective encryption process, but performed to match the encryption capabilities of a second subscriber. So teaches this as it teaches working with multiple cable systems shown in paragraphs 51, 63 and 161); and assembling a stream of selectively encrypted content from the encrypted first portions and the second portions to produce a selectively encrypted stream of content that is individually encrypted for delivery during the VOD session (paragraph 106, disclosing the selective encryption).

So's invention does not encrypt the content after each request, but it recognizes that prior art for VOD distribution does teach encryption after each request (see paragraphs 14 and 15). Colligan teaches encryption after each request (Fig. 5A and associated text) and use of selective encryption to reduce the amount of encryption/decryption (examples shown in Figs. 12-14 and associated text).

So and Colligan are analogous art because they are both directed to VOD systems and efficient encryption of content for delivery to the subscribers.

At the time of invention, it would have been obvious to a person skilled in art to combine teachings of Colligan in encrypting after each request with teachings of So.

The motivation to combine lies in the fact that VOD subscribers have variety of set top systems and it is desirable to be able to service all of them to expand client base. In fact So teaches that legacy systems use encryption in real time for each request. A person skilled in art would be motivated combine so that they could service both the legacy systems using real time encryption and systems that use pre-encryption.

7.2. As per claim 2, So is directed to the VOD method according to claim 1, wherein the first portions are stored in a first file and the second portions are stored in a second file (paragraph 55 discloses storing the content in files of OLES).

7.3. As per claims 3, 12, So is directed to the VOD method according to claim 2, wherein the first and second files are stored in a VOD server (OLES is part of VOD server).

7.4. As per claims 4, 13, So is directed to the VOD method according to claim 1, further comprising streaming the selectively encrypted content to the terminal (paragraph 59).

7.5. As per claims 5, 14, So is directed to the VOD method according to claim 1, wherein the first decryption method comprises a legacy encryption method (per definition of "legacy" in paragraph 39 of applicant's disclosure, a legacy encryption method is an encryption method based on existing technology. So's encryption method's are based on existing technology).

7.6. As per claims 6 So is directed to the VOD method according to claim 1, wherein the assembled stream is passed through a second encryption device that is not provisioned to carry out encryption processing on the stream (according to paragraph 75, multiple encryption keys may be used to encrypt the content depending on configuration. Therefore, multiple encryption devices are present that may not carry out encryption if not configured to do so).

7.7. As per claim 11, So is directed to the VOD method according to claim 1, further comprising: if the request is from a terminal having decryption capabilities associated with the second decryption method, then: assembling a stream of content from the first portion and the second portion; routing the stream to a second encryption device; and encrypting the first portions using a second encryption process at the second encryption

device to produce a selectively encrypted stream (according to paragraph 51, CPS encrypts content based on CAS specifications. Therefore, if the client is capable of performing second decryption method, the data will be encrypted accordingly).

7.8. As per claims 8, 15, So is directed to the VOD method according to claim 1, wherein the second decryption method comprises a non-legacy encryption method (paragraph 55 discloses use of the encryption record, which allows So's system to flexibly work with any encryption method, by negotiating encryption parameters with the client before encryption).

7.9. As per claims 9, 16, So is directed to the VOD method according to claim 1, carried out under control of a programmed processor (paragraph 59).

7.10. Claims 18 to 33 are disclosed by So as described by responses to claims 1 to 17.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farid Homayounmehr whose telephone number is (571) 272-3739. The examiner can be normally reached on 9 hrs Mon-Fri, off Monday biweekly.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Farid Homayounmehr

KAMBIZ ZAND
SUPERVISORY PATENT EXAMINER

6/14/2007